Comparisons of Job Characteristics

Focus Occupation: Medical Scientists, Except Epidemiologists (19-1042)
Associated Occupation: Epidemiologists (19-1041)

Compare Knowledge
Compare Skills
Compare Abilities
Compare Detailed Work Activities
Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 82

Focus Occupation: Medical Scientists, Except Epidemiologists (19-1042)
Associated Occupation: Epidemiologists (19-1041)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Mathematics	9.2	18.7	17.2	0	Current knowledge level may be sufficient
English Language	11.2	17.6	17.4	0	Current knowledge level may be sufficient
Biology	3.7	16.5	19.8	>	Current knowledge level is likely sufficient
Medicine and Dentistry	3.7	12.7	15.6	>	Current knowledge level is likely sufficient
Sociology and Anthropology	4.1	11.6	7.8	<<	Extensive education and/or training may be required
Geography	3.9	8.8	2.4	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 96

Focus Occupation: Medical Scientists, Except Epidemiologists (19-1042)
Associated Occupation: Epidemiologists (19-1041)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Science	4.5	18.2	17.6	0	Current skill level may be sufficient
Reading Comprehension	10.7	16.7	17.2	0	Current skill level may be sufficient
Active Listening	11.0	14.6	13.0	<	A higher skill level may be required
Critical Thinking	10.8	14.6	16.2	>	Skill level is likely sufficient
Writing	9.2	14.3	13.9	0	Current skill level may be sufficient
Complex Problem Solving	9.1	13.9	14.6	0	Current skill level may be sufficient
Judgment and Decision Making	9.4	13.9	12.8	0	Current skill level may be sufficient
Monitoring	9.9	13.3	12.8	0	Current skill level may be sufficient

Active Learning	8.7	13.0	13.4	0	Current skill level may be sufficient
Coordination	9.1	11.8	9.7	<	A higher skill level may be required
Systems Analysis	6.5	11.8	11.9	0	Current skill level may be sufficient
Systems Evaluation	6.4	11.5	11.7	0	Current skill level may be sufficient
Mathematics	6.2	11.0	11.3	0	Current skill level may be sufficient
Operations Analysis	5.0	9.5	10.0	0	Current skill level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 96

Focus Occupation: Medical Scientists, Except Epidemiologists (19-1042)
Associated Occupation: Epidemiologists (19-1041)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Oral Comprehension	12.5	16.4	18.8	>	Current ability level is likely sufficient
Problem Sensitivity	11.1	16.2	16.1	0	Current ability level may be sufficient
Written Comprehension	11.0	16.0	18.3	>	Current ability level is likely sufficient
Oral Expression	12.4	15.7	17.5	>	Current ability level is likely sufficient
Inductive Reasoning	10.2	15.2	18.6	>>	Current ability level is likely more than sufficient
Written Expression	9.8	15.0	14.9	0	Current ability level may be sufficient
Deductive Reasoning	10.6	14.6	16.0	0	Current ability level may be sufficient
Category Flexibility	9.0	12.2	12.4	0	Current ability level may be sufficient
Fluency of Ideas	7.6	11.8	9.4	<	Some improvement in abilities may be required
Mathematical Reasoning	6.3	11.5	11.0	0	Current ability level may be sufficient
Number Facility	6.3	11.0	9.8	<	Some improvement in abilities may be required
Memorization	5.6	8.4	5.1	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 100

Focus Occupation: Medical Scientists, Except Epidemiologists (19-1042)
Associated Occupation: Epidemiologists (19-1041)

Work Activities	Exclusivity of Activity
Adhere to safety procedures	12
Advise clients or customers	19
Advise governmental or industrial personnel	28
Advise other medical practitioners on disease-related issues	99

Analyze biological research, test, or analysis data	70
Analyze chemical experimental, test, or analysis data or findings	69
Analyze medical data	57
Analyze scientific research data or investigative findings	27
Apply drug information to patient treatment	89
Calculate medical diagnostic test results	89
Collect clinical data	56
Collect samples for testing	58
Collect scientific or technical data	30
Collect statistical data	47
Communicate technical information	4
Conduct analyses or tests of biological material samples	85
Conduct analyses or tests of organic compounds	71
Conduct clinical investigations	99
Conduct field research or investigative studies	52
Conduct laboratory research or experiments	57
Conduct medical laboratory tests	87
Conduct standardized qualitative laboratory analyses	62
Conduct standardized quantitative laboratory analyses	62
Conduct training for personnel	30
Confer with research personnel	50
Confer with scientists	54
Convert information into instructional program	38
Cultivate micro-organisms for study, testing, or medical preparations	84
Develop new products based on scientific research results	71
Develop or maintain databases	30
Develop plans for programs or projects	31
Develop policies, procedures, methods, or standards	21
Develop safety regulations	74
Develop scientific or mathematical hypotheses, theories, or laws	62
Develop tables depicting data	33
Direct and coordinate activities of workers or staff	3
Direct and coordinate scientific research or investigative studies	27
Establish and maintain relationships with health specialists or civic groups	92
Examine biological or other material specimens under microscope	73
Explain complex mathematical information	30
Follow infectious materials procedures	52
Identify body response variations	57
Interpret medical laboratory test results	72
Interpret psychological test results	84
Interpret x-rays	76
Isolate and identify micro-organisms	82
Make decisions	24
Make presentations	13
Make presentations on health or medical issues	50
Order medical laboratory tests	76
Perform statistical analysis	71
Plan scientific research or investigative studies	48

Prepare reports	8
Prepare technical reports or related documentation	22
Present research papers or dissertations on health science issues	95
Provide expert testimony on research results	66
Recommend further study or action based on research data	60
Record test results, test procedures, or inspection data	48
Research health improvement issues	89
Research human or animal disease	77
Standardize drug dosages or methods of immunization	99
Take vital signs	56
Teach health personnel	92
Teach principles of medicine or laboratory procedures	95
Test air quality, noise, temperature, or radiation	82
Understand drug products	84
Understand properties or composition of drugs	64
Use biological research techniques	68
Use chemical testing or analysis procedures	54
Use clinical problem solving techniques	69
Use computers to enter, access or retrieve data	3
Use government regulations	44
Use hazardous materials information	35
Use health or sanitation standards	62
Use interpersonal communication techniques	10
Use knowledge of investigation techniques	16
Use knowledge of medical terminology	40
Use library or online Internet research techniques	21
Use mathematical or statistical methods to identify or analyze problems	30
Use medical diagnostic techniques	71
Use medical lab techniques	81
Use microscope	71
Use oral or written communication techniques	1
Use project management techniques	47
Use quantitative research methods	35
Use relational database software	26
Use research methodology procedures in health care	63
Use sanitation practices in health care settings	48
Use scientific research methodology	21
Use spreadsheet software	18
Use word processing or desktop publishing software	17
Write research or project grant proposals	33
Write scholarly or technical research papers	36
Write technical health or medical documents	73

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 76

Focus Occupation: Medical Scientists, Except Epidemiologists (19-1042)
Associated Occupation: Epidemiologists (19-1041)

Tools and Technologies	Exclusivity
Computers	1
Content authoring and editing software	1
Data management and query software	1
Industry specific software	1

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.